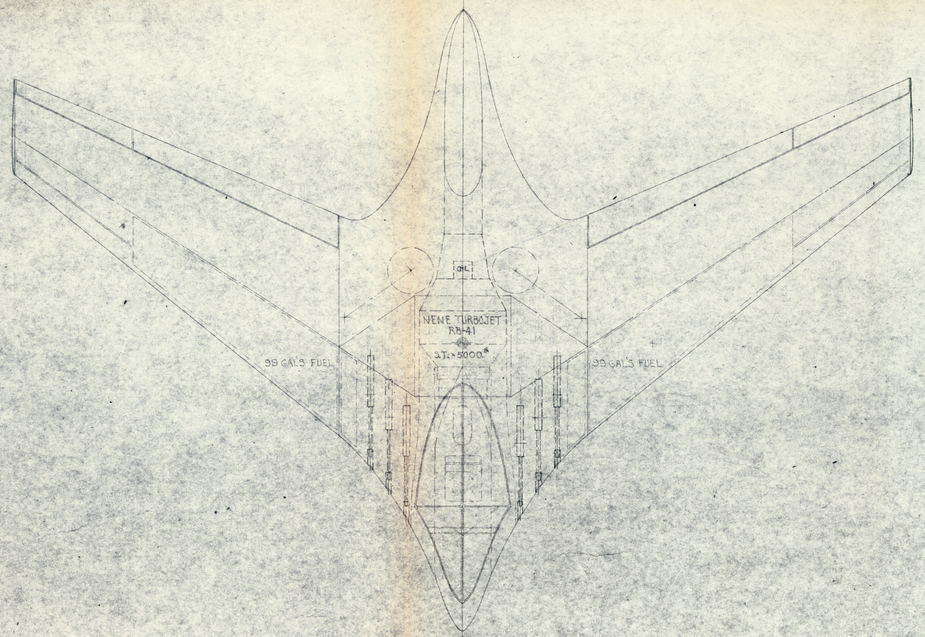
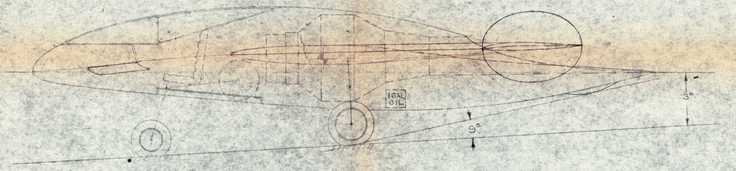


PLAN

FRONT

INTERCEPTOR
~FLYING WING~

Designer Wm F. Schult
Model S-25
Scale ~ 1"=40" Date 12/7/46



SIDE

~DIMENSIONS~
S-25

LENGTH	l_o =	29.16'	350"
SPAN (Dihedral 2° T.E. Washout Tip 2°)	b =	42.00	504"
CHORD (Root Theoretical)	C_{R_t} =	12.50	150"
" (Tip ")	C_t =	4.50	54"
" (M.A.C.)	M.A.C. =	9.16	110"
" (Root Actual)	C_R =	29.16'	350"
" (Sta. 70 ")	C_{70} =	10.27	123.3"
THICKNESS (Root Actual) = .3015	T_R =	4.66'	56"
" (Sta. 70 ") = .0009	T_{70} =	0.925	11.1"
" (Sta. 252) = .1508 (Tip Theoretical)	T_t =	0.36'	4.32"
HEIGHT	H_t =	6.79'	81.5"
AREA (Basic Wing) A = 4.98 Sweep Back L.E. 39°	S_w =	354.00 □'	
" (Fins) .0667 x 354	S_f =	23.60 □'	340 □"

~WEIGHT~

EMPTY	=	7432.#
WING (Basic)	=	2609.
CENTER SECTION	=	1115.
LANDING GEAR	=	650.
ENGINE SECTION	=	140.
POWER PLANT	=	1681.
FIXED EQUIPMENT	=	1237.
USEFULL LOAD	=	2341.#
CREW (1)	=	200.
GUNS (6-50 cal) x 52#	=	312.
GUN SIGHT	=	5.
AMMUNITION (200 rds) 82# x 6	=	492.
FUEL 198 GAL x 6.7# (¼ Hr. @ FULL THROTTLE)	=	1325.
OIL 1 GAL x 7.#	=	7.
GROSS WEIGHT (Design)	=	9773.#

~PERFORMANCE~

POWER ~ NENE TURBOJET RB-41 STATIC THRUST = 5000#

ALTITUDE	V(min)	V(max) m.p.h.	CLIMB'/min.	TIME to ALT. min.	RANGE miles
SEA LEVEL	90.	710.	10290.	.000	340.
10,000.		682.	8655.	1.06	435.
20,000.		653.	7050.	2.34	526.
30,000.		625.	5450.	3.94	608.
40,000.		600.	3870.	6.11	668.
41,000.		598.	3700.	6.37	670.
50,000.		580.	2268.	9.42	625.
60000. (Absolute Ceiling)		570.	664.	18.79	374.

ζ = 3.90 φ = .597 $\frac{L}{D}_{(max)}$ = 18.6 Radius of Turn $_{wing}$ = 1.4 miles @ 40,000'
V_e = .356 m.p.h.
L.F. = 1.52 G.

Note: Sea level performance based on Gross Weight.
Altitude performance based on revised weight at altitude because of high fuel consumption.
Range takes into account full Throttle in climb, reduced throttle at altitude and glide.